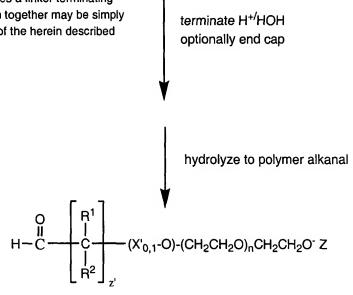
$$R^{4}W^{b} - C - \begin{bmatrix} R^{1} \\ I \\ C \end{bmatrix}_{z'} (X'_{0,1}\text{-O'}) M^{+} \longrightarrow R^{4}W^{b} - C - \begin{bmatrix} R^{1} \\ I \\ C \end{bmatrix}_{z'} (X'_{0,1}\text{-O})\text{-}(CH_{2}CH_{2}O)_{n}CH_{2}CH_{2}O^{-}M^{+}$$

Acetal precursor having an anionic site, where M^+ is a metal counterion, and (X'_{0,1}-O-) indicates a linker terminating in an alkoxide, where X'_{0,1}-O when taken together may be simply "O", or the portion X' may comprise any of the herein described linkers or combinations of linkers.



Z=H or end-capping group